ORIGINAL

DIVISION OF CONSUMER ADVOCACY
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FILED
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PUBLIC UTILITIES COMMISSION

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF HAWAII

In the Matter of the Application of)
)
HAWAIIAN ELECTRIC COMPANY, INC.)
HAWAII ELECTRIC LIGHT COMPANY, INC.)
MAUI ELECTRIC COMPANY, LIMITED)
)
For Approval of the Advanced Metering)
Infrastructure (AMI) Project and Request to)
Commit Capital Funds, to Defer and)
Amortize Software Development Costs, to)
Begin Installation of Meters and Implement)
Time-of-Use Rates, for Approval of)
Accounting and Ratemaking Treatment, and)
Other Matters.)

DOCKET NO. 2008-0303

DIVISION OF CONSUMER ADVOCACY'S
SUBMISSION OF INFORMATION REQUESTS ON HECO COMPANIES' DIRECT TESTIMONIES

Pursuant to the agreed upon Schedule of Proceedings set forth in the Order Approving Stipulated Procedural Order, as Modified, filed on April 21, 2009, the Division of Consumer Advocacy submits its **SUBMISSION OF INFORMATION REQUESTS ON HECO COMPANIES' DIRECT TESTIMONIES** in the above docketed matter.

DATED: Honolulu, Hawaii, August 7, 2009.

Respectfully submitted,

By Catherine P. Awakuni
CATHERINE P. AWAKUNI
Executive Director
DIVISION OF CONSUMER ADVOCACY

DOCKET NO. 2008-0303

HAWAIIAN ELECTRIC COMPANY, INC., HAWAII ELECTRIC LIGHT COMPANY, INC., AND MAUI ELECTRIC COMPANY, LTD.

SUBMISSION OF INFORMATION REQUESTS ON HECO COMPANIES' DIRECT TESTIMONIES

INSTRUCTIONS

In order to expedite and facilitate the Consumer Advocate's review and analysis in the above matter, the following is requested:

1. For each response, the Company should identify the person who is responsible for preparing the response as well as the witness who will be responsible for sponsoring the response should there be an evidentiary hearing;
2. Unless otherwise specifically requested, for applicable schedules or workpapers, the Company should provide hard copies of each schedule or workpaper together with one copy of each such schedule or workpaper on electronic media in a mutually agreeable format (e.g., Excel and Quattro Pro, to name two examples); and
3. When an information request makes reference to specific documentation used by the Company to support its response, it is not intended that the response be limited to just the specific document referenced in the request. The response should include any non-privileged memoranda, internal or external studies, assumptions, Company instructions, or any other relevant authoritative source which the Company used.

4. Should the Company claim that any information is not discoverable for any reason:

   a. State all claimed privileges and objections to disclosure;

   b. State all facts and reasons supporting each claimed privilege and objection;

   c. State under what conditions the Company is willing to permit disclosure to the Consumer Advocate (e.g., protective agreement, review at business offices, etc.); and

   d. If the Company claims that a written document or electronic file is not discoverable, besides complying with subparagraphs 4(a-c), identify each document or electronic file, or portions thereof, that the Company claims are privileged or will not be disclosed, including the title or subject matter, the date, the author(s) and the addressee(s).

CA-IR-37 **Ref: HECO T-1 and Response to PUC-IR-1 – Total Project Costs.**

The Company indicates that the total project costs will total $115,016,000 (see, e.g., HECO T-1, page 7, line 17).

a. Based on information made available, it appears that the total project costs should actually be higher. For instance, in the response to PUC-IR-1, the costs presented in 2016 appear to reflect a significant amount of costs related to the MDMS. If the costs to be incurred in 2016 are included, the total costs from 2010 through 2016 would be $140,282,000. Please explain what these costs in 2016 are.

b. If not explained in the response to part (a) of this information request, please explain why these costs should not be included in the total project costs that have been identified for Commission approval.

CA-IR-38 **Ref: HECO T-1, page 8.**

a. Based on the understanding that AMI is intended to be a foundational element of a smart grid future, please discuss how the design and deployment of an AMI system can be reasonably accomplished without having a clear path and/or comprehensive design for the smart grid.

b. Please discuss and/or confirm the possibility that if an AMI system, including the MDMS, is selected before the design for the smart grid is determined, that the design of the smart grid may be limited by the AMI choice made now.

CA-IR-39 **<u>Ref: HECO T-2 - Meter Deployment.</u>**

a. Do the Companies contend that each customer and, on a more aggregated basis, customers on a circuit will be able to achieve the same level of benefits as all other individual customers and on a separate circuit basis? If so, please provide the basis for this contention.

b. If the Companies generally agree that it is likely that different customers and areas can provide varying levels of return on investment, please discuss whether the cost effectiveness and practicality of identifying customers and/or areas of high "return" is desirable and feasible.

CA-IR-40 **<u>Ref: Project Roll-Out.</u>**

a. Assuming that the project is approved as proposed by the Companies and reporting requirements are ordered by the

Commission to evaluate the success of the proposed project and associated programs, please discuss the possible pros and cons associated with any potential circumstances requiring the Commission to halt the project in order to re-evaluate the project to better achieve project objectives, improve cost effectiveness, and realignment with overall goals (e.g., Energy Agreement, Smart Grid development when the plan is developed, etc.).

b. If not already discussed in part (a) of this information request, please discuss the Companies' thoughts on whether it is possible and/or reasonable to have a deployment plan that will include phases to allow for stakeholders to evaluate the alignment or agreement between the proposed AMI project and other system objectives at certain stages, rather than proceeding without any re-evaluation of whether the proposed project will support other key objectives, such as the smart grid and renewable development.

c. With the continued assumption that reporting requirements are established, if the deployment of the meters and other attendant infrastructure is predicated upon prioritizing areas of highest expected cost effectiveness, please confirm that the reported results are likely to be more favorable than deploying meters in a haphazard plan of first-come, first-served. Please provide analyses or other support considered by the Company.

CA-IR-41 **Ref: HECO T-2.**

A concern was raised regarding the possibility that the regulators cannot evaluate whether the proposed AMI system is an optimal solution for Hawaii and its customers.

a. On page 18 of HECO T-2, the question regarding the regulators' ability to evaluate the project is posed. The response to this issue appears to acknowledge that AMI technologies and products are rapidly evolving and are competitive. The response, however, does not appear to address the regulators' ability to evaluate whether the optimal system has been selected in the absence of a comprehensive business case, including comparative analyses of various alternatives. Please discuss.

b. Please discuss whether it is the Companies' understanding that all MDMS systems are technology neutral. In other words, please confirm that the selection of the proposed Sensus technologies does not limit the possible MDMS solutions and scenarios that the Companies may consider. Please provide support for the Companies' response.

c. If the Companies cannot confirm that MDMS solutions are technology neutral, please discuss the practicality of the following relationships:

1. selecting the meter technology and vendor without considering the interoperability and compatibility of the meters and MDMS; and
2. selecting the meter and communications technology without taking into consideration of the smart grid design and the MDMS that will best support that design.

CA-IR-42 **Ref: HECO T-2.**

On page 17 of HECO T-2, the Companies appear to acknowledge that the observations that a second technology (in addition to the proposed technology) may provide a practical solution or alternative to the Sensus fixed tower network technology for Molokai and Lanai. The Companies do not, however, indicate what measures they might take for these areas (i.e., Molokai and Lanai), and perhaps, other small, remote areas to make AMI technology and attendant programs available and accessible. Please discuss.

CA-IR-43 **Ref: HECO T-2.**

On page 19, the Companies attempt to address the Consumer Advocate's observation (beginning on page 26 of CA-T-1) that the AMI pilots have been conducted only on Oahu.

a. While the Sensus Agreement has provisions related to failure rates that would allow the Companies to be released from the contractual requirement to purchase 90% of the AMI meters from Sensus, please discuss whether the Companies would still seek cost recovery from ratepayers of the meters and infrastructure already in place that contributed to the findings that performance expectations were not adequate.

b. Please discuss whether ratepayers would be able to receive any type of refund or other benefit for costs recovered from the ratepayers associated with the AMI project due to a "failure" of the AMI meters or any other part of the proposed project. Please provide a detailed discussion of those possible recoveries.

c. In the direct testimony, the Consumer Advocate also made the observation that the pilot program most recently completed by the Companies only evaluated Sensus AMI technology. Please discuss whether the Companies considered the likelihood or possibility that if the pilots also conducted tests of other technologies that different results and findings might have been reached. If the Companies did consider this, please discuss why the Companies chose not to evaluate other technologies concurrently with the Sensus technologies.

1. If it is the Companies contention that any such pilot would have still resulted in the Sensus technologies and solution to be selected, please provide copies of the documentation relied upon to support the Company's response.

d. HECO asserts that 93 – 95% network coverage will exist with the AMI meters. Please confirm that if 93% is not achieved, it is at the vendors' expense to install additional infrastructure to ensure compliance with this benchmark.

1. Please discuss what recourse exists if, even after additional infrastructure is installed, 93% is not attained.

2. If not included in the response to part (1) of this information request, please describe the impact, whether benefit or cost, that customers will experience as a result of any recourse pursued by the Companies with respect to the hypothetical failure of

the proposed system to reach at least 93% network coverage.

CA-IR-44 **Ref: HECO T-2.**

The Consumer Advocate discusses the concerns regarding the reasonableness of the project costs and how the Companies' decision to forego a bidding process raises questions. (CA-T-1, pages 28 – 29)

a. While the Companies assert that "substantial technical details" have been provided and that the projected benefits "offset a significant portion" of the project costs, what can regulators do to evaluate whether other less costly alternatives might exist and still achieve the projected levels of benefits.

b. Please discuss whether the Companies can confirm that the proposed project is the least cost (not lowest) reasonable solution.

 1. If the Companies contend that they can confirm this assertion, please provide the basis for the Companies' position and include copies of all documentation relied upon to support this assertion.

 2. If the Companies cannot confirm that the proposed project is the least cost, reasonable solution, please

discuss and provide any additional information not already in the record that the regulators can rely upon to come to the conclusion that other possible AMI alternatives should be ignored.

CA-IR-45 **Ref: HECO T-2 – Sensus-Owned RNI Integration.**

The Company acknowledges that the integration of the Sensus-owned RNI is not an item included in the Sensus Agreement, but that an estimated cost for integration has been included in the Companies' analysis.

a. Please provide the applicable cell and tab references to the Companies' detailed model that identifies the estimated amount for these integration costs that were considered in the analysis but not sought for recovery in the instant docket.

b. If the Companies have yet to determine the provider, scope of services, etc. regarding the integration of the RNI, please provide a discussion of how these estimated costs were derived. Please provide a copy of the support relied upon to determine the Companies' model.

CA-IR-46 **Ref: HECO T-3 – Meter Accuracy Benefits.**

a. Please confirm that the calculated meter accuracy benefits to be offset against costs will be calculated as a function of meters that have been installed regardless of any other factor, such as the age of the non-AMI meters replaced, sales for any given year and the assumed 0.4% factor.

b. Notwithstanding the Companies' assertions that these benefits are quantifiable, it appears that the Companies are not proposing to use these savings or benefits to offset the costs to be recovered from ratepayers. If it is the Companies' position that these costs are quantifiable and realizable, please explain why the benefit should not be used to determine the net costs to be recovered through a surcharge or base rates.

c. Please provide a copy of the HECO Meter Accuracy Study dated April 30, 2007 that supports the assumed factor of 0.40%

   1. If the study only analyzes 500 meters in HECO's service territory, please discuss whether it is reasonable to assume that the findings should also be applicable to MECO and HELCO. Please provide a copy of any analyses that supports the position.

   2. Please discuss whether the results of the study are comparable to results that might be expected from a study analyzing a broader range of samples (e.g., an

industry or national study). Please provide a copy of any supporting documentation.

CA-IR-47 **<u>Ref: HECO T-3 – Energy Theft Recovery.</u>**

a. Please confirm that the calculated Energy Theft Recovery benefits to be offset against costs will be calculated as a function of meters that have been installed regardless of any other factor, such as the, sales for any given year and the assumed 0.14% factor.

b. Notwithstanding the Companies' assertions that these benefits are quantifiable, it appears that the Companies are not proposing to use these savings or benefits to offset the costs to be recovered from ratepayers. If it is the Companies' position that these costs are quantifiable and realizable, please explain why the benefit should not be used to determine the net costs to be recovered through a surcharge or base rates.

c. Assuming that the Companies are allowed to recover the net costs of the proposed project through a surcharge, please confirm that the additional costs included in and recovered through base rates, set through a rate filing subsequent to the project, would no longer be recovered through the surcharge as well the estimated energy theft recovery savings would be excluded because the assumption would be that the savings have been reflected in test year sales. If this understanding is incorrect, please clearly indicate how the savings will be reflected against the recovery of project costs both in the surcharge and through base rates.

d. It appears that the proposed factor of 0.14% is based on either an AMR book or by testimony by San Diego Gas & Electric. Please provide a copy of the relevant document that supports the assumed factor of 0.14%

   1. If the study relies on meters in another service territory, or other data not relevant to Hawaii, please discuss whether it is reasonable to assume that the findings should also be applicable to HECO, MECO and HELCO. Please provide a copy of any analyses that supports the position.

CA-IR-48 **<u>Ref: HECO T-3 – Meter Capital Savings.</u>**

The Consumer Advocate has questioned whether the projected meter capital savings are truly savings that should be used to evaluate the project. The Companies assert that it is reasonable to treat these projected amounts as savings.

a. If the Companies contend that these projected savings are realizable, please explain why these costs should not be used as an offset to the costs that will definitely be incurred and recoverable from ratepayers.

b. Please confirm that the AMI meters are expected to be more expensive and have shorter lives than non-AMI meters.

CA-IR-49 **Ref: Expected Cost/Benefit Ratios.**

a. The Companies have indicated that it relied upon a 1% replacement value for AMI meters. Please provide the basis for this value as used in the Companies' calculations other than assertions or agreed upon values in the Sensus Agreement. Assuming that the source is the FlexNet RMA Analysis, please provide a copy of that analysis.

b. Please confirm that if the replacement value is higher than 1%, the payback periods are longer and the B/C ratios are lower.

c. The Consumer Advocate indicated that given the magnitude of the project costs, one might expect that the useful life for the underlying systems, such as the MDMS, might be longer than 12 years. The Companies indicate that, given the "rapid pace of technological change[,]" a useful life shorter than 12 years might be more reasonable (HECO T-5, page 14). Please confirm that if a shorter depreciable life is used for the proposed project that this has an adverse impact on the calculated payback periods and B/C ratios since one would have to assume that if certain components have shorter useful lives, replacements, upgrades and other additional costs would be incurred.

1. If the Companies disagree with this assessment, please explain how the Companies can contend that items with a shorter useful life do not require additional costs in the forms or replacement, repair, upgrades, etc. and how these additional costs do not have an adverse impact on the findings that the proposed project is cost effective.

CA-IR-50 **Ref: Lifeline.**

a. The Company is proposing a flat credit for customers who qualify for Lifeline assistance. However, with the expectation that electricity costs will continue to increase due to various factors (e.g., fuel prices, aggressive capital investment by electric companies to meet clean energy initiatives, etc.), is it the Company's assertion that this credit will be sufficient to help customers continue to receive at least basic level electricity needs. Please provide any analyses, etc. that the Companies might have to support this expectation for each service territory.

b. Has the Company conducted any studies to determine whether low income families in Hawaii will, on average, be able to receive benefits on the same level as other residential customers in various higher income brackets. Please do not limit the Companies' response to the meter accuracy, energy theft, field services and meter reading. Please insure that the response considers TOU, DR programs and other benefits that rely on the informational and advanced capabilities that the AMI meters are supposed to deliver in comparison to non-AMI meters.

CA-IR-51 **<u>Ref: TOU Rates.</u>**

a. One common criticism of TOU rates relate to how certain customers will not be able to modify their consumption patterns to take advantage of lower rates during off-peak hours (e.g., families who have to cook, bathe, etc. during the 5 pm through 9 pm hours). While these customers would be able to "benefit" from the anticipated meter accuracy, energy theft, reduction in meter reading and field services, the ability to benefit from some of the rate options (TOU, dynamic response, etc.) will be limited. Is it HECO's opinion that these customers will receive an equal opportunity as others with respect to the possible benefits from a TOU? Please discuss.

b. If not already discussed, please discuss what programs might be available to the customers described above to help create opportunities to receive an equitable share of the possible benefits from an AMI system.

c. If there are no anticipated programs specifically designed to help those customers who will be unable to take advantage of TOU rates and will need to opt-out of TOU rates in order to avoid paying more on their electricity bill, please discuss whether, from that customer's stand point, AMI meters are a good decision.

CA-IR-52 **Ref: TOU Rates.**

a. Please identify any other jurisdictions that the Companies are aware where customers are subject to both TOU and decoupling.

b. For each of the identified jurisdictions, please provide copies of any evaluations or studies that may be available on the synergies or opposing effects that may result from customers having to deal with both TOU rates, while also being subject to a decoupling mechanism.

CA-IR-53 **Ref: TOU Rates.**

a. The Companies assert that there will not be a dilutive effect from decoupling on TOU rates. Please indicate whether a customer's bill will generally increase, decrease, or possibly stay the same under the following scenarios:

1. If a customer modifies their consumption patterns to shift their load to off-peak times, but their overall consumption remains around the same level.
2. If a customer modifies their consumption patterns to shift their load to off-peak times and their overall consumption remains around the same level, but due to a company's overall electricity sales being lower, *an additional surcharge (i.e., decoupling) is assessed.*
3. If a customer modifies their consumption patterns to shift their load to off-peak times and their overall consumption remains around the same level, but due to a company's large planned plant additions, an additional surcharge is assessed.
4. If a customer on a TOU schedule cannot modify their consumption patterns to shift their load to off-peak times and their overall consumption remains around the same level.

5. If a customer on a TOU schedule cannot modify their consumption patterns to shift their load to off-peak times and their overall consumption remains around the same level, but due to a company's overall electricity sales being higher, a credit is assessed.

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing **DIVISION OF CONSUMER ADVOCACY'S SUBMISSION OF INFORMATION REQUESTS ON HECO COMPANIES' DIRECT TESTIMONIES** was duly served upon the following parties, by personal service, hand delivery, and/or U.S. mail, postage prepaid, and properly addressed pursuant to HAR § 6-61-21(d).

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DATED: Honolulu, Hawaii, August 7, 2009.

Desiree Loo ...